

ABSTRACT OF THE DISCLOSURE

Characterizing the behavior of a chaotic, multi-dimensional system is achieved by measuring each of a number of signals associated with the system, and generating therefrom, a spatio-temporal response based on each signal. Chaoticity
5 profiles are then generated for each spatio-temporal response. Over a period of time, a determination is made as to whether a certain level of dynamic entrainment and/or disentrainment exists between the chaoticity profiles associated with one or more critical channel groups of a selected predictor, where a predictor represents a given number of critical channel groups "x", a given number of channels per
10 group "y", and a total number of channels N. Characterizing the behavior of the system is based on this determination.